ISSUE 05

AGRIVIEW

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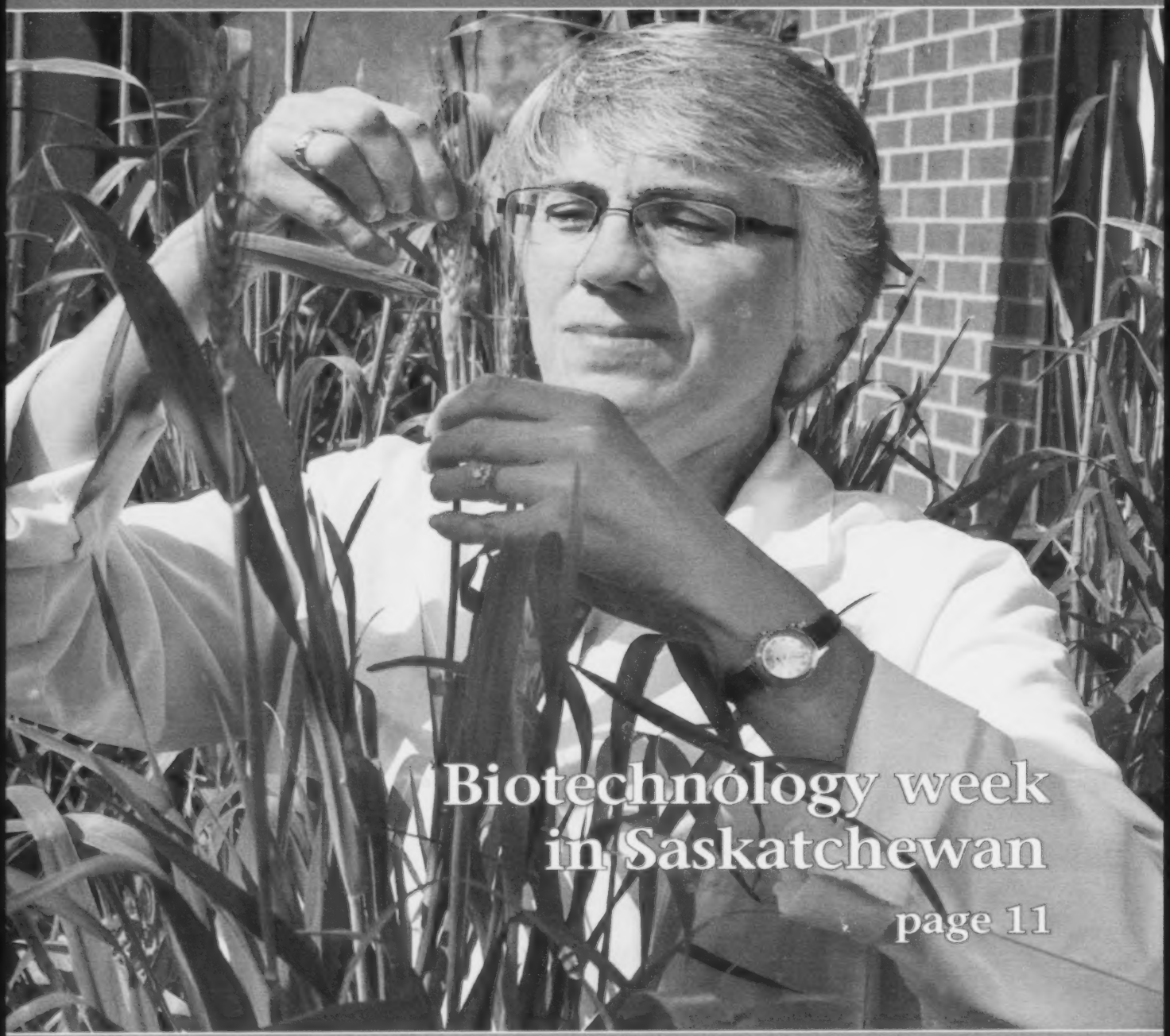

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Government of Saskatchewan
Ministry of Agriculture

Minister's Message

I am proud to proclaim September 20-27 as Biotechnology Week in Saskatchewan. Biotechnology and agriculture research make good use of Saskatchewan's agriculture advantage and create a future that is profitable for our producers, competitive for our industry and beneficial for consumers at home and worldwide.

Our government has made agricultural innovation a priority. Since 2007, we have increased our investment in this area by more than 100 per cent, announcing a record $27.7 million in agriculture research budget in 2013-14. This funding supports important research infrastructure, industry-driven research, countless jobs, and leverages millions more in private funding.

For example, we recently partnered with industry to fund wheat research. We invested $2.7 million in projects that will accelerate the development of wheat varieties and improve crop yields. This leveraged an additional $2.7 million from Dow AgroSciences, Bayer CropScience and SeCan. With marketing freedom and key public-private partnerships in areas such as wheat, we can work towards the future of our industry and the future competitiveness of our producers.

In the last year, partnerships have also allowed us to establish the Global Institute for Food Security and the Canadian Wheat Alliance. These multi-million-dollar projects will see to the sustainability and profitability of Saskatchewan crops through long-term research and development.

I was also proud to see the establishment of the Saskatchewan Wheat and Barley Development Commissions. The Commissions will consist of producer-elected members that will represent the industry. Wheat and barley producers will now have the opportunity to direct research, marketing and promotion initiatives that are important to their industry.

Our government continues to support such partnerships and research through the federal-provincial Growing Forward 2 framework of agricultural programming. This includes the Agriculture Development Fund, which has supported countless strategic research projects over a number of years as well as the Agricultural Demonstration of Practices and Technologies Program, which encourages producer-led innovation at the local level.

Earlier this year, I announced a new research chair in forages as one of our 15 Strategic Research Program Chairs as a part of Growing Forward 2. These research chairs will continue to work with industry to address the particular challenges of key sectors.

This is money well-invested. The agricultural research conducted in this province has been the source of many breakthroughs and has led to undeniable benefits for today's producers as well as consumers. In fact, KPMG recently completed a study, estimating that for every dollar Saskatchewan invests in agricultural research through the Agriculture Development Fund and Strategic Research Programs, there is a corresponding return of nine dollars to the sector.

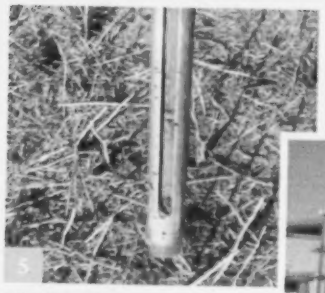
Of course, none of this would be possible without the determination and hard work of our farmers, ranchers and agribusinesses. Farms today use more advanced technology than most other workplaces and that's because we have growers open to new tools, a world-class research infrastructure and a government to support them. As outlined in the Saskatchewan Plan for Growth, by 2020, Saskatchewan will become an international leader in bioscience, and that is in no small part due to our producers leading the way in adopting new practices and technologies.

I am committed to agriculture research and biotechnology and will continue to make it a priority of this government. I look forward to all the future agricultural innovation Saskatchewan has yet to discover and share with the world.

Sincerely,

Lyle Stewart

STORY SNAPSHOTS



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Using Antibiotics Safely

Weed Webinar

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Cover: Dr. Alison Ferrie, an NRC researcher, examines a wheat plant for double haploid production. Turn to page 12 for more information.

Government of Saskatchewan
Ministry of Agriculture

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Industry trade mission to American Mid-West promotes investment, finds opposition to COOL

by Stephen Norgate, B.Comm. (Hons.) CITP
Research Officer
Policy Branch

In June, Saskatchewan's Agriculture Minister, Lyle Stewart, led a group of agriculture industry executives on a three-day trade mission to the United States. The group travelled to Colorado, Minnesota and North Dakota to promote Saskatchewan's grain and livestock interests.

While in North Dakota, the Minister attended the Mid-Western Association of State Departments of Agriculture conference where he met agriculture commissioners and directors from Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, Ohio, Wisconsin and North and South Dakota. The Minister explained Saskatchewan's opposition to Country of Origin Labeling (COOL) and promoted the Tri-National Accord meeting in Saskatoon. COOL is inflicting significant damage on both sides of the border, with the Canadian industry estimated to be losing $1.1 billion annually, while U.S. meat packers are expecting to close seven packing plants at the loss of up to 9,000 jobs.

In Minnesota, the Minister spoke at an early Canada Day celebration held by Canada's Consul General in Minneapolis that paid tribute to 20 years of NAFTA. The Minister praised Canadian, American and Mexican relations, and our interdependence on one another through the integrated North American economy. As a result of NAFTA, Saskatchewan's agri-food exports to the U.S. and Mexico have grown from $827 million in 1995 to $3.9 billion in 2012.

In addition to official events, the Minister and his delegation held 10 meetings with private-sector officials from key agribusinesses to promote trade and investment in Saskatchewan. The Minister emphasized the government's goals under the Saskatchewan Plan for Growth: increase agri-food exports to $15 billion by 2020; increase crop production by 10 million tonnes; make Saskatchewan a global leader in bioscience; and expand the province's agricultural value-added capacity. Saskatchewan's agri-food exports to North Dakota, Colorado and Minnesota alone are worth more than $500 million.

In the course of his meetings, the Minister found considerable opposition to COOL among Mid-Western agribusiness. He encouraged their representatives to raise their concerns with their political leaders and to work with their Canadian partners to resolve COOL.

FOR MORE INFORMATION

- Contact Darryl McCallum, International Business Development Specialist, at 306-787-6154 or at darryl.mccallum@gov.sk.ca.

THE *FAIR RAIL FREIGHT SERVICE ACT* SETS UP AN ARBITRATION PROCESS FOR SHIPPERS

by Lyndon Lisitza, M.Sc
Agricultural Economist
Policy Branch

In December 2012, the federal government introduced the *Fair Rail Freight Service Act* (Bill C-52) in response to recommendations contained in the Federal Railway Level of Service Review Panel's final report. On June 26, 2013, the legislation received Royal Assent and was passed into law.

The Act introduces several amendments to the *Canada Transportation Act*. Under the new legislation, a railway company now has 30 days to respond to a shipper's request to enter into a service level agreement, a contract that outlines the railway's service obligations to the shipper.

The Act also establishes an arbitration process to settle disputes between shippers and railway companies. To be eligible, the shipper must demonstrate that attempts have been made to negotiate an agreement with the railways. The Act sets out a series of definitive processes and timeframes pertaining to the arbitration process. If an arbitration request is launched by a shipper, the railway has 10 days to submit a briefing to the Canadian Transportation Agency disputing the shipper's eligibility to launch an arbitration claim. If a case goes to arbitration, the arbitrator's decision must be made within 45 days after the matter is submitted.

When making a decision, the arbitrator must take into consideration a variety of factors, including the degree of service required by the shipper, the railway's service obligations to other shippers, the operational requirements of the railway and shipper, and whether the shipper has an alternative, effective, adequate and competitive means of transporting its goods.

If a rail service complaint goes to arbitration, a decision must now be made within 45 days.

Under the new legislation, arbitration costs are shared equally between the shipper and railway. As well, an administrative monetary penalty of up to $100,000 can be issued by the Canadian Transportation Agency for a violation of an arbitrated service level agreement.

FOR MORE INFORMATION

- Visit the Parliament of Canada's website at www.parl.gc.ca and enter C-52 into the search engine.

Beat the spring rush – soil test in the fall

by Ken Panchuk, PAg
Provincial Specialist, Soils
Crops and Irrigation Branch

Fall soil testing gives Saskatchewan producers plenty of time to get the job done right and allows them to order fertilizer at what is usually the lowest price of the year. As well, fall soil testing ensures there is enough time to complete fall banding before freeze-up.

After mid-September, soil nutrients can be measured if the soil is on the drier side. Dry soils have little soil microbial activity that will affect the nitrogen levels. Availability of soil nutrients fluctuates based on several factors, including soil temperature and moisture. For moist soil, it is best to wait until the soil temperature has cooled to below 10 C, as the mineralization of nitrogen—the process where nitrogen in organic form is converted to plant available form by soil microbial activity—has slowed considerably.

Timing is less critical when sampling for soil phosphate, potassium and other nutrients. Producers should be in the field banding urea or anhydrous ammonia by the end of the first week of October. These forms of nitrogen minimize losses because they convert to ammonium, the stable form of nitrogen that stays on the soil particles until the soil warms up in the spring.

Collecting truly representative soil samples of a field is the most important part of sampling. It is also important to deliver the fresh soil samples to the soils lab as quickly as possible for processing.

Getting more from your soil test can be as easy as providing as much detailed information as possible about the field, including subsoil moisture measurements that help determine realistic yield targets for determining the correct nutrient rates. Subsoil moisture measurements can be further updated at freeze-up and again in the spring just before seeding to allow adjustments to target yields and fertilizer levels just in time for seeding.

Working with a crop advisor and soil test lab will provide producers with the information necessary to assess nutrient management requirements. Soil sampling is also an important step in the industry-led 4R nutrient stewardship program: the Right source, applied at the Right rate, at the Right time and in the Right place.

FOR MORE INFORMATION

- Contact a Regional Crops Specialist at the nearest Saskatchewan Agriculture Regional Office; or
- Call the Agriculture Knowledge Centre at 1-866-457-2377.

A soil core taken with a truck mounted soil sampler.

TAKE TIME TO PROPERLY COLLECT SAMPLES FOR HERBICIDE RESISTANCE TESTING

by Clark Brenzil, PAg
Provincial Specialist, Weed Control
Crops and Irrigation Branch

Herbicide resistance continues to evolve in Saskatchewan. To find out if the weed patch that wasn't controlled is resistant, a sample of the seed from that weed can be submitted to the Saskatchewan Agriculture Crop Protection Lab for testing.

The test involves germinating the weed seed and exposing the weed to the test herbicide, either through direct application of a spray solution or by imbedding the test herbicide in a special growth medium on which the seeds are germinated.

Because both methods require a healthy viable seed, the way the seeds are collected has a large impact on the success of the test. The following are some tips on collecting seed for submission to the Crop Protection Lab for herbicide resistance testing:

- Collect a minimum of 1,000 seeds (threshed) for each herbicide group or sub-group being tested. For example, if wild oats are to be tested for all three Group 1 resistance sub-groups ("fops", "dims" and "dens"), submit 3000 seeds.
- Make sure that seeds are mature when harvesting. Immature seeds will not grow consistently.
- Submit seeds in cloth or paper bags or "fresh produce" type plastic zipper bags to allow the seed to breathe and dry after harvest. Wet seeds sent in unventilated plastic bags will mould and be unsuitable for testing.
- If the resistant weed seeds are prone to shattering, seeds can be collected by placing plants (pulled or cut at ground level) in a Mylar (plastic weave) seed bag that is tied and hung in a well-ventilated location to dry. Once dry, shake the bag to thresh the seeds and collect the seeds for testing.
- Wild oat seeds can be easily harvested with the type of sweep net normally used for insect monitoring.

Accurate results are dependent on submitting good samples.

FOR MORE INFORMATION on submitting samples to the Crop Protection Laboratory

- Visit www.agriculture.gov.sk.ca/Crop_Protection_Lab.

Best time to control winter annuals is after harvest

by Rory Cranston, PAg
Regional Crop Specialist, Outlook
Regional Services Branch

With annual crops, fall weed control falls into two different categories: pre-harvest and post-harvest. Pre-harvest weed control is effective for controlling tall perennials and green weed growth that may interfere with harvest. It is less effective, however, at controlling problem weeds like Canada thistle, quack grass, dandelions and winter annuals.

Post-harvest weed control can be inconvenient, given the time constraints of harvest, but it is very effective at controlling these problem weeds. At this time in the season, many perennial plants and winter annuals are shutting down for the winter and are moving nutrients down into the roots. Applying a systemic herbicide in the fall will move the chemical down into the root and provide great weed control.

There are several factors to be considered in order to make post-harvest weed control as effective as possible.

Always read the product label. The label contains important product specific information like cropping restrictions, application rates and potential tanks mixes. For example, glyphosate rates are much lower when used in a pre-harvest situation, but can be increased for a post-harvest application.

To achieve the best possible weed control, the target weeds need to be actively growing. Lower older leaves are not as effective at absorbing herbicide as new leaves. After harvest, wait until weeds have developed two or three new leaves before applying a herbicide. The new growth will optimize herbicide uptake.

It is important to manage straw and chaff at harvest. Weeds that are covered by chaff and straw will have a reduced contact area that can result in reduced control. Avoid windrows by chopping or baling straw. This will increase the leaf area to come in contact with the herbicide and can result in a more effective control.

Weather is an important consideration. The cold short days in fall can slow down herbicide activity in a plant. Frost is major concern. Producers should not apply a herbicide until two or three days after a light frost. A herbicide should not be applied after a severe killing frost, as it will be ineffective at controlling weeds.

FOR MORE INFORMATION

- Contact the local Saskatchewan Agriculture Regional Office; or
- Call the Agriculture Knowledge Centre at 1-866-457-2377.

GET A JUMP ON SPRING: SEED WINTER WHEAT

by Sherrilyn Phelps, M.Sc., PAg, CCA
Regional Crops Specialist, North Battleford
Regional Services Branch

and

by Erin Campbell, M.Sc, AAg
Regional Crops Specialist, Watrous
Regional Services Branch

Growing winter wheat can provide good returns and allows producers to shift some spring seeding to the less-hectic fall. Some of winter wheat's other advantages include the ability to use early season moisture, increased competition against weeds and early harvest in the fall.

Good establishment is critical and starts with a few pre-seeding considerations. The variety should be selected based on winter hardiness and disease resistance, as well as marketing considerations. Stubble choice, seeding rates, seeding date and weed control are additional factors that can have a large impact when growing winter wheat.

Canola stubble is preferred for winter wheat as it has the lowest disease, insect and weed risk, while providing good snow trapping potential.

Canola stubble is preferred as it provides the lowest disease, insect and weed risk, while still providing good snow-trapping potential. Recent research has shown that pea stubble can also be used. Seeding dates range from late August to mid-September, depending on the area. Optimal overwintering occurs at the three- to four-leaf stage with one tiller. Seeding too early or too late can produce plants that may be too large or too small, reducing their winter hardiness and overall yield potential.

Having a good weed control program in the fall to manage winter annual and perennial weeds will help ensure the crop has a competitive advantage in the spring. Winter wheat is similar to barley in terms of weed competitiveness when seeded at recommended rates. Target seeding rates for winter wheat stands are 300 seeds per square metre.

Seed rots and seedling blights are a concern in winter wheat as the soil temperature drops with the approach of winter. Seed treatments can provide early protection to help promote a healthy root system and increase seedling survival over winter. Recent research is showing some very positive results in response to the use of seed treatments. Wet conditions can occur in late spring and early summer when crop canopies are susceptible to disease development. Fungicide application may be warranted if leaf spots or rusts appear on the upper two leaves, or if there is a risk of fusarium head blight.

FOR MORE INFORMATION

- Contact a Regional Crops Specialist at the nearest Saskatchewan Agriculture Regional Office; or
- Call the Agriculture Knowledge Centre at 1-866-457-2377.

Unique forage and crop nutrient value calculator now available on Ministry website

by Bryan Doig, PAg
Provincial Feeds/Regional Forage Specialist,
North Battleford
and

by Lorne Klein, PAg
Regional Forage Specialist, Weyburn
Regional Services Branch

When crops are harvested and transported, nutrients are being removed from the land. So what is the economic cost of replacing those nutrients with commercial fertilizers?

The Saskatchewan Ministry of Agriculture has developed an easy-to-use calculator that determines the economic value of nutrients removed by forages (alfalfa, grass, cereals, straw) and crops (cereals, pulses, oilseeds).

For each commodity, the calculator determines the amount and economic value of the four macro-nutrients—nitrogen, phosphorus as phosphate (P_2O_5), potassium as potash (K_2O) and sulfur—removed from the soil. The economic value of the exported nutrients is based on the market price of commercial fertilizers.

The economic value of nutrients in forages and straw is reported as dollars per bale, based on a bale weight chosen by the producer

Value of Nutrients in Feeds Priced by Fertilizer

(Values in blue cells can be changed)

Select the Type of Nitrogen and Phosphate Fertilizer. Then Enter Current Market Prices

46-0-0	$620.00	per Tonne
11-52-0	$725.00	per Tonne
0-0-62	$690.00	per Tonne
20-0-0-24	$525.00	per Tonne

Value of Nutrients

Nitrogen (N)	$0.6114	per lb.
P as Phosphate (P_2O_5)	$0.5031	per lb.
K as Potash (K_2O)	$0.5048	per lb.
Sulphur (S)	$0.4828	per lb.

Average Levels of Forage Nutrients* (100% Dry Matter) 1 Tonne = 2,204.6 lbs

Feed type	lbs N per tonne	lbs P_2O_5 per tonne	lbs K_2O per tonne	lbs S per tonne	Total Value $/Tonne DM	Energy % Maintenance	Average Bale "as fed"	Weight lbs Bale Bushel	Value per Bale / Bushel
Cereal Straw	13.76	4.04	37.34	2.65	$30.42	10.00	1,2420	800	$9.94

Saskatchewan Agriculture has developed this calculator to help producers determine how much nutrients are removed from the soil by forage harvesting, and whether it is economically worthwhile to replace those nutrients with commercial fertilizers.

The value of nutrients in grains, pulses and oilseeds are reported as dollars per bushel.

User instructions for the calculator are included in the "Value of Nutrients" worksheet. Producers are able to select various commercial fertilizer products that are readily available or the fertilizers that would normally be used. The local market price for each fertilizer selected is then added.

If sulfur or potash are not used as a fertilizer, they can be excluded from the calculation.

The calculator was developed in Microsoft Excel. The end user will need a copy of Excel to run the software. The calculator is located on the Ministry of Agriculture website at www.agriculture.gov.sk.ca.

FOR MORE INFORMATION

- Contact Bryan Doig, Provincial Feeds/Regional Forage Specialist, North Battleford at 306-446-7477 or bryan.doig@gov.sk.ca; or
- Contact Lorne Klein, Regional Forage Specialist, Weyburn, at 306-848-2382 or lorne.klein@gov.sk.ca.

INCREASE STUBBLE HEIGHTS TO TRAP MORE SNOW

by Shannon Chant, M.Sc., PAg
Regional Crops Specialist, Swift Current
Regional Services Branch

In most years in Saskatchewan, moisture is a limiting factor for crop yields. Because of higher-than-normal moisture in the last few years, this has not been as much of a concern and, in some areas, excess moisture has been a problem. Even though lack of moisture may not be a concern now, it is good to understand how moisture conservation using stubble height can help in dry years.

In the fall and winter of 2010, the Wheatland Conservation Area in Swift Current conducted an Agriculture Demonstration of Practices and Technologies (ADOPT) project on stubble heights and snow trapping. A stripper-header from Agriculture and Agri-Food Canada Swift Current and a conventional header were used to harvest plots of pea, lentil, durum and flax. In all crops, the stripper-header left much higher stubble than the conventional header, ranging from 4.0 inches higher for peas to 16.6 inches higher for durum (Table 1).

The depth of snow increased as stubble height increased. The plot with the most snow was the durum harvested with a stripper-header. The plot with the least snow was the lentil harvested with a conventional header.

When snow depth was converted to a water equivalent, all plots where crops were harvested with a stripper-header had more water than plots harvested with a conventional header (Table 1).

Table 1. Increase in stubble height, snow depth and water equivalent in plots harvested with a stripper-header compared to plots harvested with a conventional header.

Crop	Increase in stubble height (inches)	Increase in average snow depth (inches)	Increase in water equivalent (inches)
Pea	4.0	3.4	1.0
Lentil	5.5	3.6	1.0
Durum	16.6	12.6	3.7
Flax	14.1	14.0	4.2

FOR MORE INFORMATION

- Contact Shannon Chant, Regional Crops Specialist, at 306-778-8291 or shannon.chant@gov.sk.ca.

Bryan Nybo of the Wheatland Conservation Area standing in stripper-header stubble (left) and conventional header stubble (right).

Celebrating the 15th annual National Prairie Appreciation Week

by Nadia Mori, M.Sc, PAg
Regional Forage Specialist, Watrous
Regional Services Branch

and

Natasha Wilkie, Manager
Prairie Conservation Action Plan

Numerous events were held to celebrate the 15th annual Native Prairie Appreciation Week (NPAW) from June 16 to 22, 2013. The week is declared by the Saskatchewan ministries of Agriculture and Environment to increase awareness and appreciation of native prairie ecosystems and their importance to Saskatchewan's environmental and agricultural sectors.

Several contests were held before and during the week. The week's theme was chosen through a Facebook contest. Children and youth were invited to celebrate NPAW through their artwork; three very talented young artists were chosen as first place winners for each of the three age categories. A third contest launched during NPAW and continuing until September 30, 2013, is the Saskatchewan Prairie Conservation Action Plan (PCAP) passport contest. The passport contains suggested locations that can be explored while appreciating the native prairie ecosystem that makes Saskatchewan such a special place. The entry with the most items checked off will win a prize. To obtain a copy of the passport, contact the Saskatchewan PCAP office by phone at 306-352-0472 or by e-mail at pcap@sasktel.net.

Events during the week included a launch event on Monday, June 17, Saskatchewan PCAP booths at the Regina and Saskatoon farmers' markets, National Aboriginal Day and the Native Plant Society of Saskatchewan's tour.

Each year during prairie appreciation week, a tour is held to highlight a part of Saskatchewan's ranch and pasture heritage. This year, the tour was held in partnership with the Saskatchewan Pasture School, resulting in a two-day event based out of the Weyburn and Big Muddy Badlands areas.

FOR MORE INFORMATION on the next National Prairie Appreciation Week

- Contact the Saskatchewan Prairie Conservation Action Plan at 306-352-0472 or pcap@sasktel.net.

Participants of the Saskatchewan Pasture School and Native Prairie Appreciation week tour explore a native pasture in the Big Muddy area.
Photo credit: Natasha Wilkie

WEED WEBINAR SERIES – STAY INFORMED FROM THE CONVENIENCE OF HOME

by Nadia Mori, M.Sc, PAg
Regional Forage Specialist, Watrous
Regional Services Branch

Over the coming fall and winter, the Ministry's Regional Forage Specialists are providing a series of monthly weed webinars. The series is intended to increase awareness and knowledge of key weed management issues. Producers and land owners are obligated to manage weeds based on the priority listing in *The Weed Control Act*. This series of webinars will provide practical approaches to help producers and landowners in their weed management strategies. The webinar format allows participants to view the presentation from any location, provided they are connected to the Internet.

The first webinar focuses on management options for Canada thistle and will be held on Wednesday, September 4 at 12 p.m. Central Standard Time. The October webinar features a discussion on absinth wormwood management and control. Mapping is an important part of ongoing weed management and will be the focus of the November webinar, which introduces viewers to iMap Invasives. In December, the webinar will focus on the invasive species Japanese and downy brome. The January webinar will feature foxtail barley management.

Two webinars will be broadcast in February with one focusing on scentless chamomile and one on common tansy. The final webinar, held in March 2014, will provide an overview of leafy spurge management.

The first webinar on September 4 focusses on management options for Canada thistle.

The webinars will generally be held over the lunch hour and are offered free of charge. Contact a Regional Forage Specialist to obtain the link to register for each webinar. All registered attendees will receive a link to the recorded webinar which may be viewed after the original broadcast time.

FOR MORE INFORMATION and assistance with managing invasive weeds:

- Contact a Regional Forage Specialist; or
- Call the Agriculture Knowledge Centre at 1-866-457-2377.

Environmental Stewardship: Good for Business

by Bryan Gourlie, P.Eng
Provincial Environmental Engineer
Livestock Branch

Raising livestock in an environmentally responsible manner not only meets one of the industry's critical sustainability pillars, but can also reap bottom-line rewards.

Producers who can show they are meeting environmental standards are leaders in sustaining their industry. How food is produced, including how its production affects the environment, is becoming more important in international trade negotiations and, ultimately, in the consumer's choice of products.

Employing good environmental management practices by handling waste properly can improve production efficiencies. Proper manure storage systems and runoff controls combined with good manure and dead animal management can yield dividends of improved herd health, enhanced feed conversion rates, reduced predation, increased soil quality and reduced pen maintenance.

Producers who consider the environment in their operations are respected by their neighbours, watershed groups and local municipalities. Employing best practices will help avoid environmental complaints, improve the image of the livestock sector and allow individuals to focus on their business instead of addressing complaints.

Intensive livestock operations generally require one or more environmental regulatory approvals. Producers who have obtained these approvals will have easier access to capital and government financial programs. To minimize their financial liability, key agricultural money lenders are verifying environmental regulatory compliance prior to approving financing. Some government financial programs, such as those providing funding for beneficial management practices (BMPs), may require compliance with environmental regulations in order to be eligible for funding.

Complying with environmental regulations and incorporating BMP's may reduce the business risk of environmental damage and the associated legal sanctions. Livestock waste can contaminate soil and water, potentially rendering them unusable. In extreme cases, pathogens in manure and livestock carcasses can cause illness or death in humans if not managed properly.

Dairy and poultry operators are required to follow the on-farm food safety programs established by their marketing boards. These include components requiring operators to meet established environmental protocols and regulatory standards and to enhance operational biosecurity.

It is the producer's personal responsibility to be an environmental steward and be compliant with environmental regulation. Fortunately, the effort may also improve the bottom line.

FOR MORE INFORMATION

- Contact the Ag Knowledge Centre at 1-866-457-2377.

HELP PREVENT ANTIBIOTIC RESISTANCE: USE FARM ANTIBIOTICS RESPONSIBLY

by Dr. Wendy Wilkins, DVM, PhD
Disease Surveillance Veterinarian
Livestock Branch

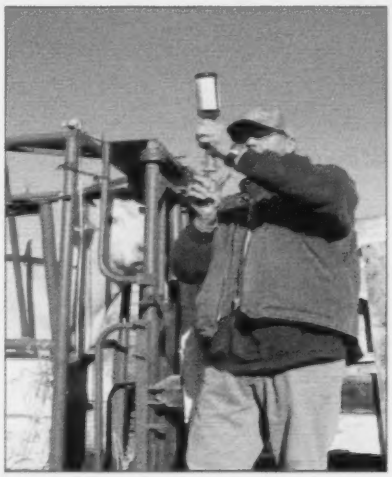
Antimicrobials (more commonly known as antibiotics) are substances that kill or inhibit the growth of bacteria. Just as antibiotics are important in protecting human health, they also are important in protecting animal health. Antibiotics may be used to treat, control and prevent diseases in livestock and poultry. Some antibiotics offer the added benefit of improving livestock and poultry growth.

With antibiotic use comes antibiotic resistance. A major cause of antibiotic resistance is believed to be the overuse or inappropriate use of antibiotics. When antibiotics are used inappropriately, the weak bacteria are killed, while the stronger, more resistant ones survive and multiply. Eventually, the antibiotic is no longer effective.

The growing problem of antibiotic resistance, and the lack of development of new and more effective antibiotics, has led to a global movement to eliminate overuse and abuse of these lifesaving drugs in both human and animal medicine. It is important that prudent use guidelines are followed by food-animal producers and healthcare providers alike, so that the effectiveness of antibiotics is preserved and antibiotic resistance is prevented.

So what can Saskatchewan producers do? By following a few basic principles, producers can limit antibiotic resistance on their farms.

- Ask a veterinarian for advice on prudent antibiotic use;
- Always use antibiotics properly. Follow the label dosage, route of administration and treatment time;
- Ask a veterinarian for advice on improving herd or flock health, which will reduce the need for antibiotics;
- Ask a nutritionist for advice on alternative feeds and feeding strategies for growth;
- Consider replacing current growth promotants with approved non-antibiotic alternatives;
- Periodically re-evaluate any antibiotic use for growth promotion to make sure it is still working. If there is no benefit, quit using it; and



When antibiotics are used inappropriately, the weak bacteria are killed but the strong ones survive and multiply, leading to resistance.

- Follow guidelines provided by national on-farm food safety or quality assurance programs, such as the Canadian Quality Assurance (CQA®) program for pork production.

FOR MORE INFORMATION

- Contact Dr. Wendy Wilkins, Disease Surveillance Veterinarian, at 306-798-0253 or wendy.wilkins@gov.sk.ca.

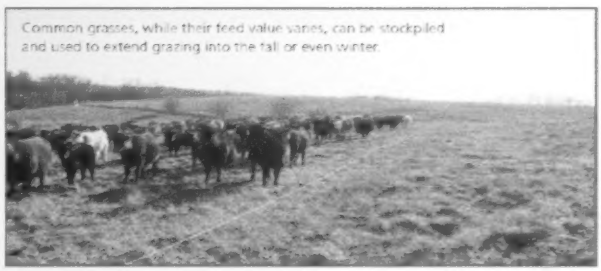
Reduce winter feeding costs by stockpiling perennials for early fall grazing

by Bill Biligetu, PhD, AAg
Regional Forage Management Specialist
Agriculture Knowledge Centre

By stockpiling forage on pasture, livestock producers can reduce their feeding costs by extending grazing into the fall or even winter.

According to a 1998-2004 study completed in southern Saskatchewan by the Semiarid Prairie Agriculture Centre of Agriculture and Agri-Food Canada, common grasses, although varied in feed value and yield, could be used in extended grazing.

The study found that Russian wild rye and western wheatgrass had the highest crude protein content at 7.7 per cent of dry matter. Two common grasses, meadow brome and crested wheatgrass, had a low crude protein content of five and 5.3 per cent of dry matter, respectively, but had a relatively low fibre content, thus increasing digestibility or available nutrition.



Common grasses, while their feed value varies, can be stockpiled and used to extend grazing into the fall or even winter.

Among the grasses, Russian wildrye and meadow brome had the highest dry matter digestibility at 52 and 50 per cent, respectively. Native grasses, including northern wheatgrass and green needle grass, tended to have the highest fibre and lowest dry matter digestibility for fall grazing.

Averaged across seven years, forage yield in a pure grass stand was the highest for crested wheatgrass followed by western wheatgrass. All other common cool-season grasses had similar forage yields.

This study also evaluated grass and legume mixes. In general, alfalfa-grass combinations had higher yield and quality than pure grasses or sainfoin and cicer milkvetch-grass mixes. In grass mixes, sainfoin and cicer milkvetch were short lived and were replaced by cool-season grasses in drier years.

The study also tested two warm-season grasses: switchgrass and big bluestem. Warm-season grasses require high temperature and usually initiate growth later than many common grasses including brome and wheatgrass. Even though the warm-season grasses had a relatively high nutritive value and dry matter digestibility, their yields under Saskatchewan conditions were limited and are not recommended for stockpiled grazing in Saskatchewan.

FOR MORE INFORMATION

- Contact a Regional Forage Specialist at the nearest Saskatchewan Agriculture Regional Office; or
- Call the Agriculture Knowledge Centre at 1-866-457-2377.

LITTER: A RANCHER'S INSURANCE POLICY

by Kevin France, M.Sc, PAg
Provincial Specialist, Forage Crops
Crops and Irrigation Branch

The health of native prairie pastures determines how well they are able to perform their key ecological functions, such as producing forage, preventing soil erosion, cycling nutrients, capturing and storing water, maintaining plant diversity and preventing the growth of weeds.

An important component of a healthy rangeland is the amount of litter on the site. Litter (also called mulch) is the old plant residue left over from previous years' production. Litter protects soil against erosion, enhances forage production and nutrient cycling, and buffers against dry conditions by aiding moisture retention and reducing moisture loss.

For the producer, having enough litter means more moisture is available for plant growth, especially during dry periods. Recent studies show that, without adequate litter, forage yields will be reduced by about 50 per cent in the Brown and Dark Brown Soil Zones and by about 30 per cent during dry years in Black Soil Zones. Of course, in very severe drought, no amount of litter will cause pastures to grow, but adequate litter will mean a faster recovery when drought breaks.

Without adequate litter, forage yield can be reduced by 30 to 50 per cent in dry years.

Litter can be considered a kind of 'forage bank' or an 'insurance policy'. Retaining litter on the site buffers the pasture from drought and maximize forage production. Care should be taken to ensure the pasture is not being overgrazed to maintain adequate litter levels at all times—do not empty the bank.

Healthy rangelands do more than provide forage; they play an important role in watershed function, carbon sequestration and biodiversity. Maintaining rangeland health, including litter, is essential to getting the maximum benefit from the land.

FOR MORE INFORMATION

- Contact the Regional Forage Specialist in the local Saskatchewan Agriculture Regional Office; or
- Call the Agriculture Knowledge Centre at 1-866-457-2377.

Biotechnology Week events

September 20 to 27, 2013, is Saskatchewan Biotechnology week in conjunction with the 10th annual National Biotechnology week. The industry is transforming many of Canada's economic cornerstones: agriculture, forestry, energy and manufacturing.

In Saskatchewan, which is home to approximately one-third of Canada's biotech industry, there are a number of events planned to celebrate the week.

- September 21-22, is **DNA Weekend** at the Saskatchewan Science Centre in Regina. Bring the children. Extract DNA from a banana, make DNA key chains and more.
- September 23 from 1 to 4 p.m. is AgWest Bio's **Food Myth Busters' TweetUp**. Saskatchewan food experts will take to Twitter to answer the public's questions on food safety and regulation. Join the Tweetup at #foodmyths, and follow @agwestbio and @food_centre.
- September 23 from 3:30 to 6:30 p.m. is the panel discussion, **Why Health Innovation Matters**, hosted by the Greater Saskatoon Chamber of Commerce in The Bassment, 202 4th Ave. N., Saskatoon.
- September 24 at 7 p.m. is **OMG! GMO!**, a public lecture on sustainable agriculture, GMOs and organic food by Mark Lynas, a British journalist, author and environmental activist who has changed his position on GMOs and now sees them as essential to feeding the world. It is being held at the Broadway Theatre, 715 Broadway Ave., Saskatoon.
- September 26 from 1 to 4 p.m. is the **Amazing Biotech Race** at the University of Saskatchewan. Teams of high school, community college and university students search for clues, participate in lab challenges and learn about Saskatoon bioscience companies.
- The race ends with the fourth annual **Biotech and Beer** from 4 to 7 p.m. at Boffins Club, Innovation Place. Speakers offer their insights into biotechnology and discuss career opportunities in the industry.

FOR MORE INFORMATION

- Visit www.imagineation.ca/events.

HOW ARE GM CROPS PRODUCED?

by Shaun Gibson, PhD, AAg
Program Manager, Processing and Agri-Value
Agriculture Research Branch

Almost everyone in agriculture knows how valuable genetically modified (GM) canola is to the industry and individual farmers, but very few people understand how GM canola is created.

The development of glyphosate-resistant canola begins with the creation of glyphosate-resistant bacteria. First, the deoxyribonucleic acid (DNA) sequences that contain the gene for glyphosate resistance are paired with two different antibiotic resistance genes. The genes are replicated from a target sequence and inserted into a plasmid, a circular bacterial DNA. Once DNA has been inserted, the plasmid is used to transform bacteria, usually *Escherichia coli*. Scientists use the first antibiotic resistance gene to confirm that the *E. coli* have been successfully transformed with the plasmid as only transformed bacteria will grow on a medium containing that antibiotic. Large numbers of the transformed bacteria are then cloned.

To generate glyphosate-resistant canola, plasmid is isolated from *E. coli* and used to transform *Agrobacterium tumefaciens*, which has the unique ability to integrate pieces of its DNA into the genome of some plants. *A. tumefaciens* is attracted to certain compounds produced by injured canola plants, and it is this mechanism that scientists use to transform canola.

First, a culture of transformed *A. tumefaciens* containing the plasmid is grown. Then, both seed leaves of canola seedlings are cut, creating a wound, and dipped into an *A. tumefaciens* solution, allowing the bacteria to enter the wound. The bacteria insert the gene containing the second antibiotic and glyphosate resistance into the canola genome. The infected leaves are allowed to recover and are then exposed to the second antibiotic. This allows scientists to identify and remove any plants that did not take up the transformed bacteria and also creates a callus of plant cells over the wound. The callus is removed from the leaf and placed in a medium where it grows shoots. The shoots are removed and placed in another medium where they grow roots. From these roots grow the first generation of a new, genetically modified glyphosate-resistant canola.

FOR MORE INFORMATION

- Contact Dr. Shawn Gibson, Program Manager, at 306-787-2522 or shawn.gibson@gov.sk.ca.

RESEARCH INVESTMENT PAYS BIG DIVIDENDS

by Sidney Friesen,
Research Manager, Research Unit
Agriculture Research Branch

A recent study has concluded that every research dollar invested by the provincial government into agriculture research results in an additional $9 in benefits to producers.

The study was undertaken by KPMG, who completed an economic benefit-cost analysis on two research programs – the Agriculture Development Fund (ADF) and the Strategic Research Program (SRP) – to ensure that taxpayers were getting a good return on the government's substantial investment in research.

Some highlights from the KPMG report:

- As a result of research in areas like better-yielding crop varieties, zero-till drills and new herbicides, 10 million acres of traditional summerfallow land have been brought into regular crop production.
- New barley varieties introduced by the Crop Development Centre (CDC) have revolutionized the barley malting industry.
- As a result of research in areas like herbicide tolerance and zero tillage methods over a period of years, lentils went from being a marginal crop to a $673-million export crop in 2012.
- In-field winter feeding strategies are saving cattle producers approximately 6¢ per head per day. Using a conservative estimate of 120 feeding days per year, this research alone is estimated to save Saskatchewan cattle producers between $70 million to $93 million from 1986 to 2025.
- Extended fall grazing for calves, a recently adopted practice based on ADF and SRP research, saves producers between 55¢ to 68¢ per head per day.
- Work by the Prairie Swine Centre, funded in part by ADF, led to the approval of ractopamine for use in Canada, earning hog producers an extra $2 per pig marketed.
- Research into leptin gene variants, funded in part by ADF, allows feedlot operators to distinguish between genetic variations related to growth and fat profiles which can earn producers up to $20 more per head through improved carcass value.

KPMG concluded that the ADF and SRP effectively serve the public good by mobilizing the scientific resources needed to solve critical problems. The results from this study confirm the strategic importance of Saskatchewan's continued high level of investment in agricultural research and innovation.

FOR MORE INFORMATION

- Read the full report at www.agriculture.gov.sk.ca/Research.

True breeding in oat now achievable in months rather than years

Development of true-breeding plant lines allow breeders to accelerate the rate at which new crop varieties are released, by reducing the number of generational cycles required to select for desirable traits. One of the ways to achieve this is by developing doubled haploid (DH) plants through tissue culture. Tissue culture is a process that involves exposing selected plant tissues to a specific regimen of nutrients, hormones and lights under sterile, in vitro conditions to rapidly produce many new plants.

DH plants formed via tissue culture have cells that contain two identical gene sets, allowing breeders to select genetically pure offspring with stable backgrounds and attributes such as better quality and disease resistance within the first generation of breeding.

DH technology already existed for many cereal crops, including wheat, barley and triticale, but not oat, which is considered one of the most difficult cereal crops to develop using this technology. Previous research studies produced a few viable DH plants, but at a very low efficiency rate, making the procedure impractical. As a result, oat researchers around the world continued to use time-consuming traditional breeding techniques.

Dr. Alison Ferrie and her colleagues at the National Research Council of Canada (NRC), with the financial support of Saskatchewan's Agriculture Development Fund (ADF), set out to find a solution by developing a doubled haploidy protocol for oat as a means to accelerate crop improvement programs.

In order to develop an efficient DH protocol, researchers followed two methods: anther culture and microspore culture. The first method consisted of isolating anthers from the unopened flower buds and culturing them in artificial media to develop DH plants. The second protocol involved specifically isolating the microspores (immature pollen grains) present inside the anthers to develop DH plants.

From both these methods, embryo-like structures were formed successfully in the artificial culture media. Embryos are the minute, rudimentary stage of plants that are usually seen in germinating seeds. For the development of these embryos or embryogenesis, high microspore densities were found to be critical during the culturing process. Further experiments were conducted to evaluate other factors such as donor plant conditions, cultivar, media composition and culture conditions. Researchers also assessed factors influencing embryo conversion to mature plants. In this study, the highest embryo yield was obtained with microspores cultured at 1,000,000 to 2,000,000 microspores per millilitre of culture medium. Microspore density on either side of this range appeared to inhibit embryogenesis.

Once plantlets with shoots and roots were formed, researchers used sophisticated equipment to determine if they were haploid plants with only one set of chromosomes. With haploid plants, it is necessary to double the chromosomes to produced DH plants, so the researchers treated the plantlets with a chromosome-doubling chemical called colchicine. The roots and crowns of the plantlets were dipped in colchicine at concentrations of 0.1 per cent or 0.2 per cent under four incubation periods (1.5, three, four or five hours). The four-hour treatment with 0.2 per cent colchicine produced the highest conversion of haploid to doubled haploid plants.

Doubled haploid plants were then grown to maturity and seed was collected from them. Finally, the seed from the DH plants was grown under both field and greenhouse conditions and the plants were assessed. In collaboration with the Crop Development Centre, a total of 115 doubled haploid lines were evaluated: 29 lines from the microspore culture, 28 lines from the anther culture and 58 anther-culture-derived clones. In the field, the DH lines performed well when compared to the control lines, and exhibited the expected uniformity within each line.

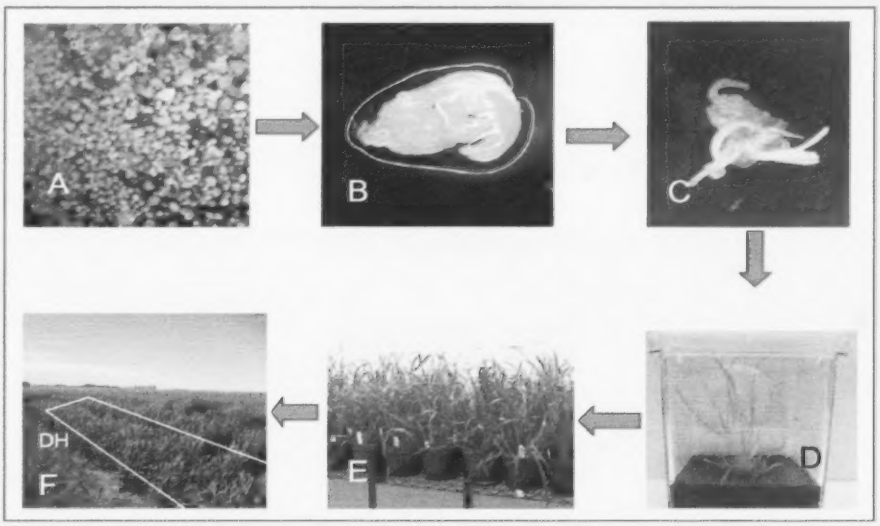
With this technology, the researchers are able to get seeds from true-breeding oat lines within five to six months as compared to seven to eight years through conventional breeding approaches. As a result of this discovery, oat breeders in Saskatchewan and around the world will be able to develop new oat varieties more quickly, and be better able to determine grain quality and disease resistance. As well, these findings will be useful in further research related to mutagenesis, physiology and oat genomics studies.

The Agriculture Development Fund provides funding to institutions, companies and industry organizations to help them carry out research, development and value-added activities in the agriculture and agri-food sector. The results produce new knowledge, information and choices in technologies, techniques and varieties for farmers, ranchers, processors and input suppliers, to improve the competitiveness of Saskatchewan's agriculture sector.

In 2013, the Saskatchewan Ministry of Agriculture committed $9.9 million in new funding for 61 ADF research projects.

FOR MORE INFORMATION

- Visit the Saskatchewan Agriculture research reports page at www.agriculture.gov.sk.ca/ADF/Search and enter the report number 20070063 into the search function.



Doubled haploidy process in oat. **A.** Microspore-derived embryos, **B.** Microspore-derived embryo on solid medium, **C.** Germinating embryo, **D.** Plantlet, **E.** Haploid/doubled haploid plants in greenhouse, **F.** Doubled haploid plants in the field (Summer 2012)

Deadline approaching for submitting Gopher Control Rebate Program claims

by Karen Williamson
Manager, Financial Services
Financial Programs Branch

The Gopher Control Rebate Program provides assistance to farmers, ranchers, rural municipalities (RMs) and First Nations for costs incurred to control gophers in 2013. The program provides rebates for 50 per cent of the costs of purchasing approved products for controlling gophers.

Gopher damage to crop and forage land in many parts of Saskatchewan has been extensive. To limit damage, many producers across the province have purchased significant quantities of gopher control products. As such, the Ministry is pleased that two per cent strychnine has received permanent registration status to help control gophers.

Producers can receive rebates on eligible gopher control products purchased between October 1, 2012 and October 1, 2013. A complete list of products covered under the program can be found at www.agriculture.gov.sk.ca/GE2-PestControl.

Application forms are available from RM offices, Saskatchewan Agriculture Regional Offices or online at www.agriculture.gov.sk.ca/GE2-PestControl.

Deadline for applications is November 30, 2013.

FOR MORE INFORMATION

- Call Financial Programs Branch at 1-866-947-9113; or
- Email gopher@gov.sk.ca.

Producers can receive rebates on gopher control products purchased between October 1, 2012 and October 1, 2013

PAIR UP WITH PREP TO ERADICATE RATS

by Richard Wilkins
Provincial Specialist, Pesticide Regulatory
Crops and Irrigation Branch

and

Tayah Hanson
PREP Manager
Saskatchewan Association of Rural Municipalities

Saskatchewan producers can play a key role in rat eradication by participating in a zero-tolerance strategy that focuses on four crucial aspects: **P**revention, **A**ccess, **I**dentification, and **R**eporting.

The Provincial Rat Eradication Program (PREP) is in full swing for the 2013 year. The goal of the program is the elimination of rats in the province. PREP makes grants available to rural municipalities to provide rat abatement activities and to conduct annual inspections of all agricultural sites, both occupied and unoccupied, where agricultural produce is stored or where livestock or poultry is or has been housed.

Rats thrive in hidden places where they can tunnel and access food and water. Best management practices suggest keeping yards and agricultural sites clear of harbourage, such as rubbish and debris. Special attention should be given to bale stacks, old and new granaries, grain bags (especially old ones), rock piles, tall grass and discarded grain piles. The goal is to minimize or eliminate habitat in close proximity to water and food sources.

Rats that escape a cleanup program at one site often move to neighbouring yards; therefore, prevention baiting is a good-neighbour policy. Many rural municipalities have rat bait available to ratepayers, and the local pest control officer can advise on proper baiting techniques. Bait stations should be set up in such a way that keeps larger animals, pets and children out while giving mice and rats easy access.

Landowners and producers can help through:

Prevention—Clear away rat habitat and use prevention baiting.

Access—Allow pest control officers access to the land for inspections and rat abatement activity.

Identification—Identify and report to the municipality all sites that should be inspected, including occupied/unoccupied old buildings, old landfills and private dumping areas on unoccupied land.

Reporting—Report all rat sightings to the municipality as soon as possible, even if you are baiting your own land. Remember: rats are nocturnal animals. If you see rats during the day, it is often an indication of a serious infestation.

FOR MORE INFORMATION

- Visit the Saskatchewan Association of Rural Municipalities website at www.prep.sarm.ca.

Prevention, access, identification and reporting are the key to controlling rats

Crop Insurance and Fall-Seeded or Forage Crops

FALL CROPS

If producers decide to seed and insure a fall crop for harvest in 2014, they will need to complete a Fall Seeded-Acreage Report (SAR). August 25 was the deadline to select winterkill insurance for fall rye and winter wheat crops, which are to be seeded by September 15. The deadline to submit the fall SAR is November 15.

Yield-loss coverage can be selected in the spring of the harvest year. Yield-loss coverage will be denied if fall-seeded acres are grazed in the fall, or in the spring prior to June 10. Crops seeded by September 15 and insured for yield-loss will be covered for establishment losses that are not winterkill-related.

FORAGE CROPS

For customers who insured tame hay, dehydrated alfalfa, sweetclover, greenfeed or timothy hay, the deadline to submit the Forage Declaration is September 30. This is also the deadline to register a claim for yield-loss on forage acres. In some cases, claims will be paid based on customer-submitted production information. SCIC will verify a percentage of declarations. Contact a customer service representative to determine eligibility.

Before putting a crop to an alternate use or moving production off the farm, producers should contact their local Crop Insurance office and provide five days for inspections to be completed. Alternate use may include grazing, silage or ploughing under. Clippings will be collected by an adjuster to help determine potential yield of a crop on acres that are not baled.

Producers unable to harvest all acres of forage by September 30 can request an extension of insurance. Extensions are not granted past November 15.

FOR MORE INFORMATION

- Contact the nearest Crop Insurance office;
- Call 1-888-935-0000; or
- Visit www.saskcropinsurance.com.

MANY WAYS TO MEET AGRISTABILITY DEADLINE

The Saskatchewan Crop Insurance Corporation (SCIC) would like to remind producers there are a number of ways to submit their 2012 AgriStability Program forms by the September 30, 2013, deadline.

Since introducing an online process for submitting program forms in 2012, AgConnect has become a preferred method for submitting program information to SCIC. AgConnect is a secure website that gives producers and their contact persons (accountants) the ability to review previous AgriStability information and submit new information. By using AgConnect there is the potential to have files processed quicker, because the information automatically enters SCIC's system and is ready for processing.

To use AgConnect, producers and their contacts need to activate their account. Those who have not activated their accounts but would like use AgConnect should contact the AgriStability Call Centre at 1-866-270-8450 to get started.

While AgConnect has been popular, SCIC continues to accept program forms by mail, fax or through any of the 21 local Crop Insurance offices across the province. Additional support is also available if there are questions about the program or if some help is required when completing program forms.

AgriStability advisors are located throughout the province and can be a great resource for ensuring forms are completed accurately.

Please keep in mind any 2012 program forms received after September 30, 2013, are subject to a penalty. AgriStability benefits will be reduced by $500 per month. However, if no benefit is calculated, there is no penalty applied. December 31, 2013, is the final deadline for submitting program forms with penalty.

To ensure timely processing, it is important that program forms are submitted to the correct location. Individual participants (sole proprietors) need to submit their supplementary information (inventories, receivables, payables, deferrals and purchased inputs) directly to SCIC. An individual's tax information (income and expenses) must be submitted on the T1163 form to the Canada Revenue Agency in Winnipeg. Individuals can also submit their tax information to SCIC using AgConnect. Corporations and co-operatives are to continue to submit all AgriStability Program forms to SCIC.

FOR MORE INFORMATION about AgConnect or the requirements of the September 30 deadline

- Contact the local Crop Insurance office;
- Visit www.saskcropinsurance.com; or
- Call 1-866-270-8450.

Hanley ranchers win environmental award

Allen and Lillian Patkau of Sandy Arrow Ranch Ltd., located west of Hanley, are the provincial 2013 winners of The Environmental Stewardship Award (TESA).

In Saskatchewan, TESA is awarded each year by the Saskatchewan Stock Growers Association in partnership with Ducks Unlimited Canada and Meyers Norris Penny to a cattle producer who demonstrates excellence in environmental stewardship. Each provincial award-winner is nominated for the national award presented by the Canadian Cattlemen's Association.

"As cattle producers, protecting and nurturing the land we make our living on has been our main focus," said the Patkaus in a Government of Saskatchewan news release. "Making sure we are doing right by the land today will help make sure it survives and thrives for years to come. We are honoured to be recognized for our environmental efforts and will continue to work to improve the land."

For more than 30 years, the Patkaus have been slowly converting their land to grass and have used best management practices to ensure the most efficient use of water and soil. They have been involved in Saskatchewan Agriculture's Environmental Farm Plan Program. As a patron of a federal pasture, Mr. Patkau is part of the provincial advisory committee on the federal pasture transition.

"Allen and Lillian Patkau are true environmental stewards and this is a well-deserved recognition of their excellence in going above and beyond what is considered best practice," Agriculture Minister Lyle Stewart said. "They set a positive example for fellow producers and pave the way for the next generation."

Chad Haaland (l), neighbor and nominator, and SSGA General Manager Chad MacPherson (r) present Lillian and Allen Patkau with an oil painting in recognition of their TESA. Photo courtesy of Wanda Knoss, SSGA

More information on The Environmental Stewardship Award as well as nomination forms are available on the Saskatchewan Stock Growers Association website at http://skstockgrowers.com/tesa.

LIVESTOCK LOAN GUARANTEE PROGRAM UPDATED

In August, the provincial government announced changes to the Livestock Loan Guarantee Program to bring it up to date with the needs of the province's livestock producers.

Individual member maximum limits have been raised from $300,000 to $500,000 under the Cattle Feeder option and from $200,000 to $500,000 under the Cattle Breeder option. The combined individual maximum limit under both options has been raised from $300,000 to $500,000.

RFID tags are now an alternative to brands for spring calves under the Cattle Breeder option.

For bison producers, the individual member maximum limit has been raised from $200,000 to $500,000 under the feeder option and from $125,000 to $500,000 under the breeder option. The combined individual maximum limit under both options has been raised from $300,000 to $500,000.

The corporate maximum loan limit under all species and options has been raised from $300,000 to $1.5 million.

These changes were made to reflect higher livestock prices and larger herd sizes.

Several other changes were made to better meet the evolving needs of the livestock industry. Radio Frequency Identification (RFID) tags are now an alternative to brands for spring calves under the Cattle Breeder option. The tagging date for calves under the Bison Breeder option has been changed from December 1 of the year of birth to March 31 of the year following birth. This means that bison producers who wean their calves in February or March now only have to handle the animals once rather than twice. This reduces stress on the animals and cost to the producer.

The Livestock Loan Guarantee program was established in 1984 to encourage the growth of the province's livestock industry by giving livestock producers another financing option when purchasing livestock or building or expanding feedlots.

FOR MORE INFORMATION

- Call the Financial Programs Branch at 306-787-5275.

EVENTS CALENDAR

DATE	EVENT	LOCATION	PHONE	INTERNET
September 15, 2013	Deadline to seed fall rye and winter wheat to be eligible for winterkill insurance.		1-888-935-0000	www.saskcropinsurance.com
September 27-29, 2013	Young Ranchmans All Breeds Livestock Show	Swift Current Ag and Ex, Swift Current	306-689-2597	www.youngranchmanshow.com
September 30, 2013	Deadline to file Forage Declarations. Deadline to register forage yield-loss claims or request an extension of insurance on un-harvested forage acres.		1-888-935-0000	www.saskcropinsurance.com
September 30, 2013	Deadline to submit your AgriStability program forms without penalty.		1-866-270-8450	www.saskcropinsurance.com

Raising agricultural awareness through pizza

by Brady Kapovic
Junior Communications Consultant, Agriculture Awareness
Regional Services Branch

The Ministry of Agriculture is committed to increasing the public's awareness of agriculture in Saskatchewan. In Yorkton in June, Regional Services staff—with help from Agriculture in the Classroom, Agrium, the Yorkton Chamber of Commerce, the Yorkton Exhibition Association, Monsanto, Flamen Sales, the Ministry of Justice, Ducks Unlimited Canada, James Richardson International, Farm Credit Canada and The Garlic Garden—established a Pizza Farm to teach children the basics of agricultural production.

The Pizza Farm is a large circular plot that has been partitioned into eight segments, each representing a different ingredient needed to produce a pizza: wheat for the crust, canola for the oil, tomatoes, peppers, garlic and herbs for the sauce, a pig for pepperoni and ham, and a dairy cow for cheese.

In the spring, Yorkton grades three and four students travelled to the farm to plant many of the ingredients. In the process, they learned about the basics of agricultural production and how agricultural

Yorkton's grades three and four students (and their teachers) learned about agriculture through pizza.

technology is used to produce safe and nutritious food. The students will return to the plot in the fall during harvest and see the plants fully grown.

After the 'spring seeding' was completed, the teachers filled out a short survey to evaluate the success of the program. The consensus was overwhelmingly positive. "Out of everything I've taught my students throughout the school year, this is the one day that my students will remember forever," said one of the teachers.

The Pizza Farm is the first of its kind in Saskatchewan. Based on this inaugural success, it could be a model used across the province to educate children about the agriculture and agri-food industry and the vital role it plays.

FOR MORE INFORMATION on the Agriculture Awareness Initiative
- www.agriculture.gov.sk.ca/ag-awareness

Call for nominations

Saskatchewan's two new cereals commissions are seeking nominations for their first elected boards.

Producers registered with the Saskatchewan Wheat Development Commission (SWDC) and Saskatchewan Barley Development Commission (SBDC) are eligible to serve. The SWDC requires seven directors and the SBDC will consist of six.

Nominations for both close at 5 p.m., October 18, 2013, with a November 29 election date. For details and nomination forms, please visit **www.saskwheatcommission.com** and **www.saskbarleycommission.com**.

Please direct any questions to Returning Officer Ann Smith at 306-975-6853.

Government of Saskatchewan
Ministry of Agriculture